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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,193	07/17/2007	Simone Sugliani	P/63988	2658

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Kirschstein Ottinger Israel & Schiffmiller
489 Fifth Avenue
New York, NY 10017

EXAMINER

HELLNER, MARK

ART UNIT	PAPER NUMBER
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3663

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/554,193	Applicant(s) SUGLIANI ET AL.	
	Examiner Mark Hellner	Art Unit 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 20,22,24,25,30,31,33 and 34 is/are rejected.
- 7) ☒ Claim(s) 21,23,26-29,32 and 35-38 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/12/2007</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 22, 24, 25, 30, 31, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita et al (6,611,369) in view of Islam (2004/0130777).

Re claim 22:

Matsushita et al disclose a wavelength division multiplex communication system comprising: a transmission optical fiber (16) for guiding WDM radiation having a transmission band; at least one Raman pump laser (12) for generating pump radiation having a respective pump wavelength; coupling means (22) for coupling the pump radiation into the transmission optical fiber (although co-propagation is disclosed, the use of counter-propagating Raman pumping was notoriously well known at the time of the present application and, as such, would have been an obvious variant); de-correlating means (14) for de-correlating longitudinal modes of the pump radiation (it is the examiners position that depolarization elements perform the function of de-correlating modes) before it is coupled to the transmission fiber.

The difference between claim 22 and Matsushita et al is that the transmission fiber have a zero dispersion wavelength lying midway between the transmission band and the pump band.

Figure 6 of Islam teaches that a transmission fiber with a zero dispersion wavelength lying between the pump band and the transmission band was a known element at the time of the present application and, as such, this teaching would have been obviously applied to Matsushita et al which requires the use of known Raman amplification fibers.

Claim 24 is taught by figure 5, elements 36a and 36b of Matsushita et al.

It would have been obvious to have provided a filter between the pump and the amplifying filter (claim 25) when seeking the amplifying medium of the pump.

Claim 30 is taught by figure 9A of Matsushita et al.

Claims 20, 31, 33 and 34 are taught by the combination of Matsushita et al and Islam applied to claims 22, 24, 25 and 30.

Claims 21, 23, 26-29, 32 and 35-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited show the level of skill in the art.

Any inquiry concerning this communication should be directed to Mark Hellner at telephone number 571 272 6981.

/Mark Hellner/

Primary Examiner, Art Unit 3663

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